

## ABSTRACT OF THE INVENTION

A roof structure for a building in the form of a cone shaped polygon is disclosed. The roof structure includes at least three multi-element trusses attached on corresponding ends to a vertically extending central column. Each of the trusses is rotationally displaced from adjacent ones of the trusses, as measured in a horizontal plane, preferably, by the same angle. Each of the trusses is inclined outwardly and downwardly from the central column to form a series of triangularly shaped roof segments between adjacent ones of the trusses and so as to provide the roof structure shape. The central column may be a vertically extending length of hollow pipe and is essentially non-load supporting, whereby a lower end of the column is vertically spaced above a support structure for outer peripheral edge portions of the trusses. The support structure may be a series of wood posts, a different one of which is attached on an upper end portion to an outer peripheral edge portions of a corresponding one of the trusses.